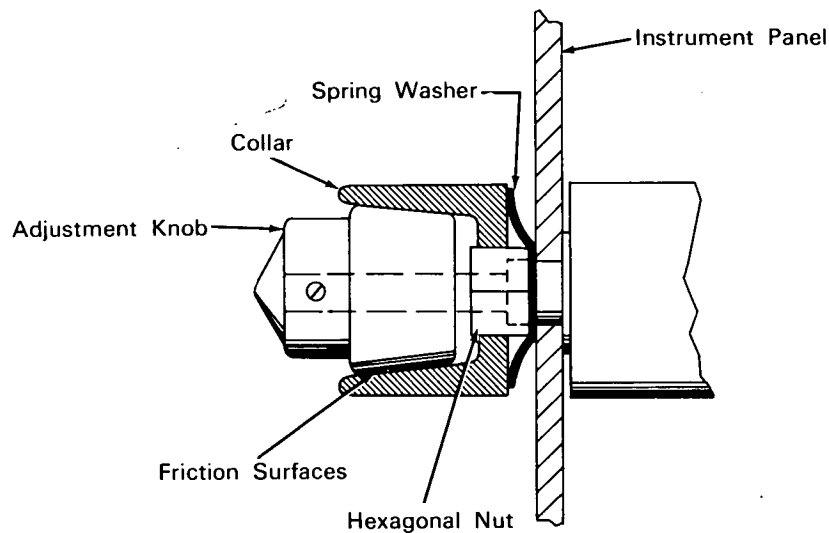


# NASA TECH BRIEF



This NASA Tech Brief is issued by the Technology Utilization Division to acquaint industry with the technical content of an innovation derived from the space program.

## Instrument Adjustment Knob Locks to Prevent Accidental Maladjustment



KNOB IN LOCKED POSITION

**The problem:** Designing an adjustment knob for instrument panels that will automatically lock after adjustments are made.

**The solution:** A knob that is in a normally locked position is easily released when it is desired to turn the knob to adjust an instrument component such as a potentiometer or a capacitor.

**How it's done:** The device incorporates a collar with a hexagonal opening in the bottom which fits snugly over the outside surface of a hexagonal nut commonly used to engage a component behind the instrument panel. A spring washer between the panel and the collar normally presses the inside surface of the collar against the conical mating surface of the adjustment knob. In this condition rotation of the

knob and collar is prevented by the hexagonal nut and friction between the mating conical surfaces. In use, the thumb and index finger press the cup toward the panel when the knob is grasped thus disengaging the friction surfaces and freeing the knob for rotational adjustment. When the thumb and finger are removed from the collar, the knob is automatically locked in the desired position.

### Notes:

1. A kit containing a supply of adjustment knobs, mating collars, and spring washers would prove useful for replacing standard adjustment knobs on instrument panels with self-locking knobs.

(continued overleaf)

2. Inquiries concerning this invention may be directed to:

Technology Utilization Officer  
Marshall Space Flight Center  
Huntsville, Alabama, 35812  
Reference: B64-10249

**Patent status:** NASA encourages the immediate commercial use of this invention. Inquiries about obtaining rights for its commercial use may be made to NASA Headquarters, Washington, D.C., 20546.

Source: Lear Siegler Corp.  
under contract to Marshall Space Flight Center  
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